Attorney Docket No. 82870

PLUNGING TOWED ARRAY ANTENNA

ABSTRACT OF THE DISCLOSURE

A towed antenna system and method of use includes a communication device disposed on a buoyant body attached to a housing by a tether. The housing includes a spool, a reel-wire guide, and a motor. The buoyant body and the reel housing are deployed from and towed at from a submerged platform. Hydrodynamic forces from towing prevent the buoyant body from rising to the surface while maintaining the housing at an equilibrium depth. To establish communication, the tether is released from the spool and the buoyant body rises to the surface. The tether is released until the communication session is over or until the tether is fully deployed. The reel-wire guide prevents the tether from becoming snagged during release. Once the communication session has been completed, the tether is retracted and the buoyant body re-establishes its equilibrium depth.